## ABSTRACT

A locking mechanism for securing a bone screw 20 to a clamping element 30 of an osteosynthesis holding system 5 is provided. The bone screw 20 has a circumferential groove 25 located on a top portion of the screw 20 below a screw head 22. Snap catches 35 protrude from a bone-contacting surface 38 of the clamping element 30 and interlock with the groove 25 in the screw 20 when the screw 20 is inserted into the clamping element 30 (e.g., when the screw is screwed into a bone segment through a hole in the clamping element). A removal device 90 is provided for removing the screw 20, as a greater axial force is required to overcome the locking mechanism than is needed to engage the locking mechanism. A method for revision (removal) of the screw 20 from the locking mechanism is also provided.